CLMPTO 08/30/04 JW

Amend Claims 1,5,

1.   (Currently Amended)   A   time   synchronization   system
comprising:

a GPS (Global Positioning System) receiver for receiving a time signal from
a Global Positioning System (GPS), and outputting a UTC (Universal Time
Coordinated) synchronization reference pulse signal synchronizing with UTC and
a UTC synchronization absolute time signal composed of a serial signal
representing an absolute time; and

a time signal distributor for generating a reference time signal by
synthesizing the UTC synchronization reference signal and the UTC
synchronization absolute time signal, and ~~thereafter this~~ transmitting the
reference time signal in distribution to a plurality of distributed control oriented
terminal devices,

wherein said time signal distributor synchronizes a rising edge of the UTC
synchronization reference signal with UTC, and transmits the time
synchronization signal to each of said terminal devices in a fixed period.

2.   [Canceled].

3.   (Original)   A time synchronization system according to claim 1,
wherein said terminal device includes a reference clock operating in
synchronization with the rising edge of the UTC synchronization reference
signal, for generating a time signal representing a time on the finer order than a
minimum time unit that is proceeded in the UTC synchronization absolute time
signal, and internal clock correction means for comparing an internal time value
based on said reference clock with an external time value synchronizing with the
UTC synchronization reference signal, and correcting said reference clock so that

the time of said reference clock synchronizes with the UTC synchronization reference signal.

4.   (Original)   A time synchronization system according to claim 3, wherein said internal clock correction means includes means for changing a unit delimiting width of the correction, corresponding to a magnitude of a time difference.

5.   [Currently Amended]   A time synchronization synchronizing system ~~according to claim 1~~, comprising:

a GPS (Global Positioning System) receiver for receiving a time signal from a Global Positioning System (GPS), and outputting a UTC (Universal Time Coordinated) synchronization reference pulse signal synchronizing with UTC and a UTC synchronization absolute time signal composed of a serial signal representing an absolute time; and

a time signal distributor for generating a reference time signal by synthesizing the UTC synchronization reference signal and the UTC synchronization absolute time signal, and transmitting the reference time signal in distribution to a plurality of distributed control oriented terminal devices,

wherein if impossible of receiving the UTC synchronization time signals from an internal reference signal generator for generating an internal reference signal synchronizing with the UTC synchronization reference signal, an internal absolute time signal generator for generating an internal absolute time signal equal to the UTC synchronization absolute time signal and the GPS receiver, said signal synthesizing unit of said time signal distributor generates an internal time signal by synthesizing the internal reference signal and the internal absolute time signal, and transmits this internal time signal as a substitute for the reference time signal in distribution to said respective terminal devices.

6.   (Original)   A time synchronizing system according to claim 5, wherein said time signal distributor, if impossible of receiving the time signal from said GPS receiver, synthesizes the internal time signal so that the internal reference signal and the internal absolute time signal are not overlapped in time.

7.   (Original)   A time synchronizing system according to claim 1, wherein each of said terminal devices includes an internal clock and, if unable to receive the reference time signal from said time signal distributor, continues a time signal process by use of said internal clock.